

What the invention claimed is:

1. A body temperature actuated treadmill operation mode control arrangement used in a treadmill having a motor disposed at the bottom end of an upright frame to drive a walking belt in rotation, left and right handlebars
5 disposed at the upright frame; and a console located on the top of the upright frame and used to control the treadmill's operation and to show numerical values and drawings with respect to the exercise state, the body temperature actuated treadmill operation mode control arrangement comprising:

a left body temperature movement detection circuit adapted to detect
10 movement of the user's left hand to produce a corresponding signal output, said left body temperature movement detection circuit being formed of a left pyroelectric effect sensor, a resistor, and a capacitor, said left pyroelectric effect sensor being installed at the respectively disposed at the left handlebar of said treadmill;

15 a right body temperature movement detection circuit adapted to detect movement of the user's right hand to produce a corresponding signal output, said right body temperature movement detection circuit being formed of a right pyroelectric effect sensor, a resistor, and a capacitor, said right pyroelectric effect sensor being installed at the respectively disposed at the right handlebar
20 of said treadmill;

signal amplifier means adapted to amplify the output signal of said left body temperature movement detection circuit and the output signal of said right body temperature movement detection circuit; and

a microprocessor electrically coupled between said signal amplifier
25 means and said console of said treadmill and adapted to control the operation

speed of the motor of said treadmill subject to the output signal from said right body temperature movement detection circuit and the output signal from said left body temperature movement detection circuit.

2. A body temperature actuated treadmill operation mode control
5 arrangement used in a treadmill having a reversible motor disposed at the bottom end of an upright frame to tilt a tread base, and a console located on the top of the upright frame and used to control the treadmill's operation and to show numerical values and drawings with respect to the exercise state, the body temperature actuated treadmill operation mode control arrangement
10 comprising:

a left body temperature movement detection circuit adapted to detect movement of the user's left hand to produce a corresponding signal output, said left body temperature movement detection circuit being formed of a left pyroelectric effect sensor, a resistor, and a capacitor, said left pyroelectric effect
15 sensor being installed at the respectively disposed at the left handlebar of said treadmill;

a right body temperature movement detection circuit adapted to detect movement of the user's right hand to produce a corresponding signal output, said right body temperature movement detection circuit being formed of a right
20 pyroelectric effect sensor, a resistor, and a capacitor, said right pyroelectric effect sensor being installed at the respectively disposed at the right handlebar of said treadmill;

signal amplifier means adapted to amplify the output signal of said left body temperature movement detection circuit and the output signal of said right
25 body temperature movement detection circuit; and

a microprocessor electrically coupled between said signal amplifier means and said console of said treadmill and adapted to control the forward/backward rotation of the reversible motor of said treadmill subject to the output signal from said right body temperature movement detection circuit
5 and the output signal from said left body temperature movement detection circuit.

3. A body temperature actuated treadmill operation mode control arrangement used in a treadmill having a walking belt control motor and a tilting control motor respectively disposed at the bottom end of an upright
10 frame to drive a walking belt in rotation and to tilt a tread base carrying the walking belt, and a console located on the top of the upright frame and used to control the treadmill's operation and to show numerical values and drawings with respect to the exercise state, the body temperature actuated treadmill operation mode control arrangement comprising

15 a left body temperature movement detection circuit adapted to detect movement of the user's left hand to produce a corresponding signal output, said left body temperature movement detection circuit being formed of a left pyroelectric effect sensor, a resistor, and a capacitor, said left pyroelectric effect sensor being installed at the respectively disposed at the left handlebar of said
20 treadmill;

a right body temperature movement detection circuit adapted to detect movement of the user's right hand to produce a corresponding signal output, said right body temperature movement detection circuit being formed of a right pyroelectric effect sensor, a resistor, and a capacitor, said right pyroelectric
25 effect sensor being installed at the respectively disposed at the right handlebar

of said treadmill;

signal amplifier means adapted to amplify the output signal of said left body temperature movement detection circuit and the output signal of said right body temperature movement detection circuit; and

- 5 a microprocessor electrically coupled between said signal amplifier means and said console of said treadmill and adapted to control the speed of said walking belt control motor and forward/backward rotation of said tilting control motor subject to the output signal from said right body temperature movement detection circuit and the output signal from said left body
- 10 temperature movement detection circuit.